Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An electronic camera apparatus with the capability of correcting luminance balance in an image signal read out from an image sensing element, said image signal representing a color image constructed by a plurality of pixels and generating a desired image from the image signal, comprising:

a luminance correction section coupled at the output of the image sensing element and operative on individual units of raw colors of said pixels, each one of said pixels each being formed from a set of predetermined units of colors and each unit of color having an analog value representing luminance information, the luminance information being discrete on a time axis, to

A) generate individual correction coefficients for each of said predetermined colors of each said pixel from a plurality of correction coefficients

B) correct white balance using corresponding luminance information in the image signal on the basis of each said correction coefficient, ~~and~~

C) output a new image signal used for image generation; and

D) store the new image in a memory located within the electronic camera.

2. (Previously presented) An apparatus according to claim 1, wherein said luminance correction section is connected in series with the image signal.

3. (Original) An apparatus according to claim 1, wherein said luminance correction section comprises

a correction control section for sequentially generating a luminance correction amount corresponding to each pixel from the plurality of correction coefficients on the basis of a clock signal synchronized with each luminance information in the image signal, and

a luminance correction amplification section for switching a gain in accordance with the luminance correction amount sequentially generated by said correction control section to amplify the input image signal by a gain corresponding to each luminance correction amount in units of luminance information, and outputting the new image signal.

4. (Original) An apparatus according to claim 1, wherein said luminance correction section comprises

a first correction control section for sequentially generating a luminance correction amount corresponding to each pixel from a plurality of first correction coefficients on the basis of a clock signal synchronized with each luminance information in the image signal,

a second correction control section for sequentially generating a luminance correction amount corresponding to each pixel from a plurality of second correction coefficients on the basis of a clock signal synchronized with each luminance information in the image signal, and

a luminance correction amplification section for setting a synthesized gain as a product of a first gain corresponding to the luminance correction amount sequentially generated by said first correction control section and the luminance correction amount sequentially generated by said second correction control section to amplify the input image signal by the synthesized gain corresponding to each luminance correction amount in units of luminance information, and outputting the new image signal.

5. (Original) An apparatus according to claim 1, wherein the plurality of correction coefficients are formed from luminance correction amounts in units of predetermined colors assigned to the pixels, and

said luminance correction section sequentially selects and uses the luminance correction amounts corresponding to the colors assigned to the pixels as the individual correction coefficients in units of pixels.

6. (Original) An apparatus according to claim 1, wherein the plurality of correction coefficients are formed from luminance correction amounts corresponding to coordinate positions defined by two-dimensional coordinates on the color image, and

said luminance correction section sequentially selects and uses the luminance correction amounts corresponding to the coordinate positions of the pixels as the individual correction coefficients in units of pixels.

7. (Original) An apparatus according to claim 1, wherein the plurality of correction coefficients are formed from luminance correction amounts corresponding to coordinate regions defined by two-dimensional coordinates on the color image, and

said luminance correction section sequentially selects and uses the luminance correction amounts corresponding to the coordinate regions to which the pixels belong as the individual correction coefficients in units of pixels.

8. (Original) An apparatus according to claim 1, wherein the plurality of correction coefficients are formed from axial luminance correction amounts representing two correction distribution characteristics changing in axial directions of two coordinate axes that form two-dimensional coordinates set on the color image, and

said luminance correction section refers to corresponding axial luminance correction amounts in units of coordinate axes on the basis of coordinate positions of the pixels and sequentially generates the luminance correction amounts corresponding to the pixels from two obtained axial luminance correction values.

9. (Original) An apparatus according to claim 1, wherein the plurality of correction coefficients are formed from axial luminance correction amounts representing two correction distribution characteristics changing in axial directions of two coordinate axes that form two-dimensional coordinates set on the color image, and

said luminance correction section refers to corresponding axial luminance correction amounts in units of coordinate axes on the basis of coordinate positions of the pixels

and sequentially generates and uses products of two obtained axial luminance correction values as the luminance correction amounts corresponding to the pixels.

10. (Original) An apparatus according to claim 1, wherein the plurality of correction coefficients are formed from axial luminance correction amounts representing two correction distribution characteristics changing in axial directions of two coordinate axes that form two-dimensional coordinates set on the color image, and

said luminance correction section refers to corresponding axial luminance correction amounts in units of coordinate axes on the basis of coordinate positions of the pixels and sequentially generates and uses sums of two obtained axial luminance correction values as the luminance correction amounts corresponding to the pixels.